

## **AMENDMENTS TO THE CLAIMS**

1. (Original) A method of growing a p-type nitride semiconductor material by molecular beam epitaxy, the method comprising supplying bis(cyclopentadienyl)magnesium ( $Cp_2Mg$ ) during the growth process.
2. (Previously Presented) A method as claimed in claim 1, wherein the nitride semiconductor material is p-type ( $Ga,AlN$ ).
3. (Previously Presented) A method as claimed in claim 1, comprising supplying ammonia gas during the growth process.
4. (Previously Presented) A method as claimed in claim 1, comprising supplying ammonia gas, gallium and  $Cp_2Mg$  to a growth chamber, thereby to grow a layer of p-type GaN.
5. (Previously Presented) A method as claimed in claim 1, comprising supplying ammonia gas, aluminum, gallium and  $Cp_2Mg$  to a growth chamber, thereby to grow a layer of p-type AlGaN.
6. (Previously Presented) A method as claimed in 1, comprising changing the supply rate of  $Cp_2Mg$  during the growth of the nitride semiconductor material.
7. (Cancelled)
8. (Previously Presented) A method as claimed in claim 1, wherein the growth process is carried out at a temperature of at least 800°C.

9. (Previously Presented) A method as claimed in claim 1, wherein the growth process is carried out at a temperature of at least 850°C.
10. (Previously Presented) A method as claimed in claim 1, wherein the growth process is carried out at a temperature of at least 920°C.
11. (Previously Presented) A method as claimed in claim 1, wherein the growth process is carried out at a temperature of at least 950°C.
12. (Previously Presented) A method as claimed in claim 1, wherein the growth process is carried out at a temperature of 960°C or below.
13. (Previously Presented) A method as claimed in claim 1, comprising supplying Cp<sub>2</sub>Mg at a beam equivalent pressure of at least 1 x 10<sup>-9</sup> mbar.
14. (Previously Presented) A method as claimed in claim 1, comprising supplying Cp<sub>2</sub>Mg at a beam equivalent pressure of at least 3 x 10<sup>-9</sup> mbar.
15. (Previously Presented) A method as claimed in claim 1, comprising supplying Cp<sub>2</sub>Mg at a beam equivalent pressure of 1 x 10<sup>-7</sup> mbar or below.
16. (Previously Presented) A method as claimed in claim 1, comprising supplying Cp<sub>2</sub>Mg at a beam equivalent pressure of 1.5 x 10<sup>-8</sup> mbar or below.
17. (Previously Presented) A method as claimed in claim 4, comprising supplying elemental gallium at a beam equivalent pressure of at least 1 x 10<sup>-8</sup> mbar.
18. (Previously Presented) A method as claimed in claim 4, comprising supplying elemental gallium at a beam equivalent pressure of 1 x 10<sup>-5</sup> mbar or below.

19. (Previously Presented) A method as claimed in claim 5, comprising supplying elemental gallium and elemental aluminium at an overall beam equivalent pressure of at least  $1 \times 10^{-8}$  mbar.
20. (Previously Presented) A method as claimed in claim 5, comprising supplying elemental gallium and elemental aluminium at an overall beam equivalent pressure of  $1 \times 10^{-5}$  mbar or below.
21. (Canceled)
22. (Canceled)
23. (Canceled)